United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Pecos District
Roswell Field Office
2909 W. Second
Roswell, New Mexico 88201

In reply refer to:
NM510(4160)
Allot:64068

Certified Mail No 7001 1940 0006 3700 7148

Paul Taylor, III
P. O. Box 344
Roswell, NM 88202-0344

NOTICE OF PROPOSED DECISION
EA#NM510-2005-0054

Dear Mr. Taylor:

The Roswell Field Office has completed an Environmental Assessment EA#NM-510-2005-0054 for the renewal of a grazing permit/lease for the Allotment #64068. The environmental assessment and the Finding of No Significant Impacts (FONSI) were sent to the permittee/lessee and all recognized interested public for a thirty (30) day comment period. No comments were received.

My proposed decision is as follows:

1. Offer a new ten year grazing permit from March 1, 2006 to February 28, 2016 based on the provisions as outlined in Alternative A, Proposed Action.

The current grazing permit expires on February 28, 2013. Upon acceptance and approval of the new permit your existing permit will be renewed.

2. Permitted use is for 367 Animal Units (AU's) yearlong at 29 percent federal range for 1,277 Animal Unit Months (AUM's) for allotment #64068. Cattle, sheep and horses are the classes of livestock proposed for authorization.

Rationale

Resource conditions on the allotment are sufficient and sustainable to support the level of use outlined in the grazing permit and/or the grazing lease. This action benefits the Bureau of Land Management's grazing administration program efforts to coordinate New Mexico Public Land Health Assessments with permit/lease renewals.

Right of Protest and Appeal

Any applicant, permittee, lessee or other interested publics may protest a proposed decision under Sec. 43 CFR 4160.1 and 4160.2, in person or in writing to the Field Office Manager, 2909 West Second, Roswell, NM 88201 within 15 days after receipt of such decision. The protest, if filed, should clearly and concisely state the reason(s) why the proposed decision is in error.

In accordance with 43 CFR 4160.3 (a), in the absence of a protest, the proposed decision will become the final decision of the authorized officer without further notice unless otherwise provided in the proposed decision.

In accordance with 43 CFR 4160.3 (b) upon a timely filing of a protest, after a review of protests received and other information pertinent to the case, the authorized officer shall issue a final decision.

Any applicant, permittee, lessee or other person whose interest is adversely affected by the final decision may file an appeal in accordance with 43 CFR 4.470 and 43 CFR 4160.3 and 4160 .4. The appeal must be filed within 30 days following receipt of the final decision, or within 30 days after the date the proposed decision becomes final. The appeal may be accompanied by a petition for a stay of the decision in accordance with 43 CFR 4.471 and 4.479, pending final determination on appeal. The appeal and petition for a stay must be filed in the office of the authorized officer, as noted above. The appellant must serve a copy of the appeal by certified mail on the Office of the Solicitor, U.S. Department of the Interior, P. O. Box 1042, Santa Fe, NM 87504 and person(s) named [43 CFR 4.421(h)] in the Copies sent to: section of this decision.

The appeal shall clearly and concisely state the reasons why the appellant thinks the final decision is in error, and otherwise complies with the provisions of 43 CFR 4.470.

Should you wish to file a petition for a stay, see 43 CFR 4.471 (a) and (b). In accordance with 43 CFR 4.471(c), a petition for a stay must show sufficient justification based on the following standards:

(1) The relative harm to the parties if the stay is granted or denied.
(2) The likelihood of the appellant's success on the merits.
(3) The likelihood of immediate and irreparable harm if the stay is not granted, and
(4) Whether the public interest favors granting the stay.

As noted above, the petition for stay must be filed in the office of the authorized officer and served in accordance with 43 CFR 4.473. If a petition for stay is not granted, the decision will be put into effect following the 30-day appeal period. Appeals can be filed at the following address:

Field Office Manager
Bureau of Land Management
Roswell Field Office
2909 West Second Street
Roswell, NM 88201

Any person named in the decision that receives a copy of a petition for a stay and/or an appeal see 43 CFR 4.472(b) for procedures to follow if you wish to respond.

If you have any questions, feel free to contact me at 505-627-0272.

Sincerely,

/s/ Eddie Bateson 3/10/2006

Eddie Bateson
Field Office Manager

Copies sent to (by certified mail):

NM Department of Game and Fish 7001 1940 0006 3700 7049
Attn: Jan Ward
P. O. Box 25112
Santa Fe, NM 87504

Forest Guardians 7001 1940 0006 3700 7100
Attn: John Horning
312 Montezuma Suite A
Santa Fe, NM 87501

Audubon Society 7001 1940 0006 3700 7131
Attn: David Henderson
P. O. Box 9314
Santa Fe, NM 87504

NM Cattle Growers' Assn 7001 1940 0006 3700 7063
Attn: Caren Cowan
P. O. Box 7514
Albuquerque, NM 87194

Center for Biological Diversity 7001 1940 0006 3700 7087
P. O. Box 710
Tucson, AZ 85702

NM State Land Office 7001 1940 0006 3700 7025
Attn: Robyn Tierney
P. O. Box 1148
Santa Fe, NM 87504-1148

ENVIRONMENTAL ASSESSMENT CHECKLIST

EA Number: **NM-510-2005-0054** Serial No.: Preparer: Joseph M. Navarro			**Action Type: Grazing Permit Renewal** Project Name: Zubi Draw #64068		
Resource / Activity	**Not Present**	**Not Affected**	****May Be Affected**	**Reviewer**	**Date**
Air Quality*			√	Hydrologist /s/ Michael McGee	8/16/05
Floodplains*			√		
Soils/Watershed			√		
Water Quality- Drinking/Ground*			√	/s/ Michael McGee Hydrologist/Geologist***	8/16/05
Vegetation			√	/s hcmiller Rangeland Management Spec	9/1/2005
Livestock Grazing			√		
Invasive, Nonnative Species*			√	/s/ hcjmiller Range Mgmt Spec/Nox. Weed Spec	9/1/2005
Wastes, Hazardous or Solids*				Hazardous Waste Spec.	
Prime/Unique Farmlands*	x			Irene Gonzales Realty Specialist	08-22-05
Lands/Realty/ROW		x			
Fluid Minerals		X		Armando A. Lopez Pet Eng/Geologist/Sur. Prot. Spec.	8/10/05
Mining Claims	√			/s/ Jerry Dutchover Geologist	08/16/05
Mineral Materials		√			
Threatened or Endangered Species*	√			/s/ D Baggao Wildlife Biologist	8/10/05
Wetlands/Riparian Zones*	√				
Wildlife Habitat			√		
Native American Religious Concerns*		X		Pat Flanary Archaeologist	8/17/05
Cultural Resources*		X			
Areas of Critical Environmental Concern*	X			J H Parman Planning & Env. Coordinator	8/23/05
Low Income & Minority Population Concerns		X			
Wild/Scenic Rivers*	X			*Bill Murry* Outdoor Recreation Planner/NRS	8/16/05
Wilderness*	X				
Cave/Karst Resources			X		
Outdoor Recreation		X			
Visual Resources			X		
Access/Transportation		x		Richard G. Hill Environ. Prot. Spec.	8/3/05

* "Critical Element" - must be addressed in all NEPA documents.

** "Affected Element" - must be addressed in the attached Environmental Assessment.

*** "Hydrologist/Geologist" – Hydrologist will be the primary lead for "Water Quality- Drinking/Ground" with Resource projects such as fire, fuels, and grazing EA's etc… The Petroleum Geologist will be the primary lead for "Water Quality- Drinking/Ground" with Minerals or oil and gas projects such as Application For Permit To Drill and Sundry Notices etc...

FINDING OF NO SIGNIFICANT IMPACT/RATIONALE

FINDING OF NO SIGNIFICANT IMPACT: I have reviewed this environmental assessment including the explanation and resolution of any potentially significant environmental impacts. I have determined the proposed action will not have significant impacts on the human environment and that preparation of an Environmental Impact Statement (EIS) is not required.

Rationale for Recommendations: The proposed action would not result in any undue or unnecessary environmental degradation. The proposed action will be in compliance with the Roswell Resource Management Plan and Record of Decision (October, 1997).

/s/ J. H. Parman 9/29/2005
for

T. R. Kreager Date
Assistant Field Manager, Resources

ENVIRONMENTAL ASSESSMENT

For

Section 3

GRAZING AUTHORIZATION

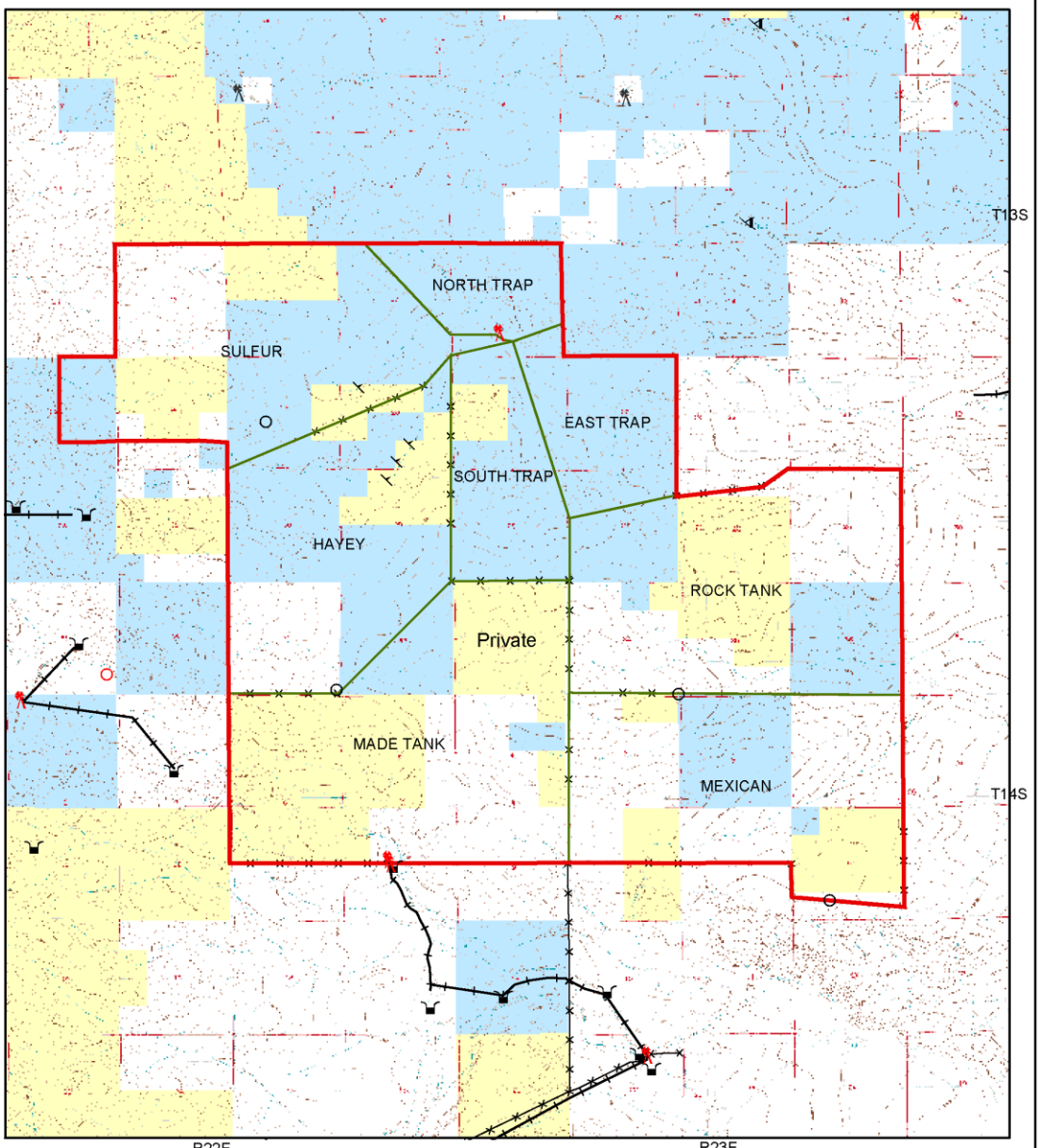
ALLOTMENT #64068

EA-NM-510-2005-0054

May 2005

U.S. Department of the Interior
Bureau of Land Management
Pecos District
Roswell Field Office
Roswell, New Mexico

Zubi Draw - 64068



State Land

Public Land

Private Land

Allotment Boundary

Pasture Fence

Barbed Wire Fence

Water Pipeline

Base Waters in Red

Detention Dam

Water Well

Windmill

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other date. Original data was compiled from various sources. Spatial information may not meet National Map Accuracy Standards. This information may be updated without notification.

Produced by the RFO GIS Specialist on March 16, 2005.

I. Introduction

When authorizing livestock grazing on public range, the Bureau of Land Management (BLM) has historically relied on a land use plan and environmental impact statement to comply with the National Environmental Policy Act (NEPA). A recent decision by the Interior Board of Land Appeals, however, affirmed that the BLM must conduct a site-specific NEPA analysis before issuing a permit or lease to authorize livestock grazing. This environmental assessment fulfills the NEPA requirement by providing the necessary site-specific analysis of the effects of issuing a new grazing permit/lease on allotment #64068.

The scope of this document is limited to the effects of issuing a 10-year grazing permit. Other future actions such as range improvement projects will be addressed in a project specific environmental assessment. There are no current plans for additional management actions on this allotment.

A. Purpose and Need for the Proposed Action

The purpose of issuing a new grazing permit would be to reauthorize livestock grazing on public land on allotment #64068 and modify the permit term to coincide with the Bureau of Land Management (BLM) schedule for Public Land (Rangeland Health Assessments) with permit/lease renewals. The permit would specify the types and levels of use authorized, and the terms and conditions of the authorization pursuant to 43 CFR ••4130.3, 4130.3-1, 4130.3-2 and 4180.1. The new permit would be issued for a term of up to, but not to exceed, ten years..

B. Conformance with Land Use Planning

The Roswell Resource Management Plan/Environmental Impact Statement (October 1997) has been reviewed to determine if the proposed action conforms with the land use plan's Record of Decision. The proposed action is consistent with the RMP/EIS.

C. Relationships to Statutes, Regulations, or Other Plans

The proposed action is consistent with the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1700 et seq.); the Taylor Grazing Act of 1934 (43 U.S.C. 315 et seq.), as amended; the Clean Water Act (33 U.S.C. 1251 et seq.), as amended; the Endangered Species Act (16 U.S.C. 1535 et seq.) as amended; the Federal Rangelands Improvement Act of 1978 (43 U.S.C. 1901 et seq.); Executive Order 11988, Floodplain Management and Executive Order 11990, Protection of Wetlands.

Proposed Action and Alternatives

A. Proposed Action:

The proposed action is to authorize Paul Taylor, a grazing permit for BLM allotment Zubi Draw. The permit would authorize 367 Animal Units (AU's) yearlong at 29 percent federal range for 1,277 Animal Unit Months (AUM's) for allotment #64068. Cattle, sheep and horses are the class of livestock proposed for authorization.

B. No Permit Authorization Alternative:

This alternative would not issue a new grazing permit. There would be no livestock grazing authorized on public land within allotment #64068.

C. Change Permitted Active Use Livestock Numbers or Management alternative:

Under this alternative permitted active use livestock numbers for allotment #64068 would be reduced. Livestock numbers associated with this reduction would either be placed into suspended use or into temporary nonuse (if a rangeland agreement with the permittee is successfully negotiated). This alternative will not be analyzed, based on the following rationale.

Long term monitoring data through 2002 was evaluated prior to this environmental assessment using established RFO protocols. These protocols utilize forage yield and range condition ratings and similarity index ratings to verify sustainable use. A forage quality factor (to limit allocation of moderate to low value forage plants) was also used. The overall evaluation supports current active permitted use (367 AUs).

This review also considered drought conditions that begin surfacing about 1999-2003 and the permittee's responses to these conditions. Licensed use (billed use) was reduced from the upper level of the active permitted use 367 AU's (1,277 AUMs), to Non-use to balance livestock grazing with resource conditions. Management actions were being taken to balance use with resources.

All available data sets (production, ground cover, plant frequency) as well as associated indices derived from the data were used in the evaluation. The resource conditions are stable and will support the permitted use level.

A. General Setting

Allotment #64068 is located in Chaves County, approximately 10 miles south of Roswell, New Mexico. The allotment consists of 5,313 acres of public land and 5,230 acres of private land. The allotment also has 8,310 acres State land. There are two qualifying base waters. One each is located on private and state land.

This allotment lies within the boundaries of the Roswell Grazing District established subsequent to the Taylor Grazing Act (TGA). Grazing authorization on public land inside the Grazing District boundary is governed by Section 3 of the TGA. Livestock numbers for this ranch are controlled under this Section 3 permit, the permittee is billed for the amount of forage available for livestock on federal land. Vegetation monitoring studies are used to determine allowable number of livestock on this ranch.

The following resources or values are not present or would not be affected: Prime/Unique Farmland, Areas of Critical Environmental Concern, Minority/Low Income Populations, Wild and Scenic Rivers, Hazardous/Solid Wastes, Wetlands/Riparian Zones, Floodplains, and Native American Religious Concerns. Cultural inventory surveys would continue to be required for public actions involving surface disturbing activities.

B. Affected Resources

1. **Soil:** In general, soil in the area is very shallow and well drained to moderately deep. Surface layers are loam and fine sandy loam. overlying dense layers of soft or cemented layers of gypsum material. This area is covered in The Soil Survey of Chaves County New Mexico, Southern Part, published by the Natural Resource Conservation Service (NRCS). A copy of this publication may be reviewed at the BLM Roswell Field Office or at the local NRCS office: Major soil associations on this allotment are:

Tencee-Upton complex:

Tencee soil makes up 55 percent of the map unit. This map unit is in the Southern Desertic Basins, Plains, and Mountains Major Land Resource Area. Runoff class is medium. Depth to a restrictive feature is 7 to 20 inches to a petrocalcic and is well drained. The slowest soil permeability within a depth of 60 inches is moderate. Available water capacity within a depth of 60 inches is very low, and shrink swell potential is low. Annual flooding is none, and annual ponding is none. Minimum depth to a water table is greater than 6 feet. Maximum calcium carbonate equivalent within a depth of 40 inches is 45 percent. In soil profile, there are no saline horizons, and there are no sodic horizons. This component is in a Shallow ecological site.

Upton soil makes up 35 percent of the map unit. This map unit is in the Southern Desertic Basins, Plains, and Mountains Major Land Resource Area. Runoff class is medium. Depth to a restrictive feature is 7 to 24 inches to a petrocalcic and is well drained. The slowest soil permeability within a depth of 60 inches is moderate. Available water capacity within a depth of 60 inches is very low, and shrink swell potential is low. Annual flooding is none, and annual ponding is none. Minimum depth to a water table is greater than 6 feet. Maximum calcium carbonate equivalent within a depth of 40 inches is 75 percent. In the soil profile, maximum salinity is very slight, and there are no sodic horizons. This component is in a Shallow ecological site.

Upton-Atoka association

Upton soil makes up 35 percent of the map unit. This map unit is in the Southern Desertic Basins, Plains, and Mountains Major Land Resource Area. Runoff class is medium. Depth to a restrictive feature is 7 to 24 inches to a petrocalcic and is well-drained. The slowest soil permeability within a depth of 60 inches is moderate. Available water capacity within a depth of 60 inches is very low, and shrink swell potential is low. Annual flooding is none, and annual ponding is none. Minimum depth to a water table is greater than 6 feet. Maximum calcium carbonate equivalent within a depth of 40 inches is 75 percent. In the soil profile, maximum salinity is very slight, and there are no sodic horizons. This component is in a Shallow ecological site.

Atoka soil is nearly level to undulating on ridges and in depressions between areas of Upton soil. It is moderately deep and well drained. Soil profile is strongly calcareous and moderately alkaline throughout. Permeability is moderate, and available water capacity is 4 to 5.5 inches. Effective rooting depth to indurated caliche is 20 to 34 inches. Runoff is medium and hazard of water erosion is moderate. Hazard of soil blowing is slight. This component is a Loamy ecological site.

Lozier-Reakor complex:

This complex occurs on low limestone hills west of Roswell. Lozier soil is very shallow and well drained. Fractured limestone is at a depth of 13 inches and soil profile is moderately calcareous in the surface layer and strongly calcareous in underlying material and is moderately alkaline throughout. Permeability is moderate and available water capacity is 1.5 to 2.5 inches. Effective rooting depth to limestone is 6 to 15 inches. Runoff is medium to slow with slight to moderate hazard of water erosion. Hazard of soil blowing is slight. This component is a Loamy ecological site.

Lozier-Tencee complex:

This complex occurs mostly in the west-central part of the survey area on low, limestone and indurated caliche hills. Tencee soil is mostly in fractured limestone underlying the indurated caliche layer. Runoff is medium and hazard of water erosion is slight to moderate. Hazard of soil blowing is slight. This component is a Gravelly ecological site.

Reakor soil:

This soil consists of deep, well drained alluvium on uplands and valley fans. Effective rooting depth is 65 inches or more with a moderately calcareous profile and strongly calcareous below. This soil is moderately alkaline throughout with moderate permeability. Available water capacity is 9 to 12 inches. This component is a Loamy ecological site.

2. **Vegetation:** This allotment is within the Grassland Vegetative Community as identified in the Roswell Resource Management Plan/Environmental Impact Statement (RMP/EIS). Vegetative communities managed by the Roswell Field Office are identified and explained in RMP/EIS. Appendix 11 of the draft RMP/EIS describes the Desired Plant Community (DPC) concept and identifies components of each community. Distinguishing features for the grassland community is that grass species typically comprises 75% or more of potential plant community. This community also includes shrub, half-shrub, and forb species. Percentages of grasses, forbs, and shrubs actually found at a particular location will vary with recent weather factors, past resource uses and potential of the site.

Primary ecological (range) sites on this allotment are Loamy and Shallow SD-3. Ecological site descriptions are available for review at the Roswell BLM office or any Natural Resources Conservation Service office or may be accessed at www.nm.nrcs.usda.gov. Other ecological sites include Shallow, and Bottomland SD-3.

Five permanent monitoring sites were established in 1978; the last monitoring data was collected in late 2003. The current vegetative data indicates a consistent composition in the grass species to forbs and shrubs. For four of five sites, composition of tobosa *(Pleuraphis mutica)* and burrograss *(Scleropogon brevifolius)* over the long-term (1978-2003) has remained constant ranging from 35 to 27% respectively. Currently, perennial half-shrub, snakeweed

(Gutierrezia sarothrae) is present throughout. This suggests that winter precipitation over the last two years has attributed to this species' emergence.

3. **Wildlife:**

This allotment provides habitat for small animals, birds, rodents, and a sustainable population of mule deer *(Odocoileus hemionus)* and pronghorn *(Antilocapra americana).* The area does contain brush or tree species that could provide quality cover for larger animals. Other game species occurring within this area include mourning dove *(Zenaida macroura),* and scaled quail *(Callipepla squamata).* Raptors that utilize this area on a more seasonal basis include Swainson's hawk *(Búteo swáinsoni*), red-tailed hawk *(Buteo jamacensis),* ferruginous hawk *(Buteo regalis),* American kestrel *(Fálco sparvérius),* and great-horned owl *(Bubo virginianus).* Numerous passerine birds utilize grassland areas due to a variety of grasses, forbs, and shrubs. Most common include the western meadowlark *(Sturnella neglecta),* mockingbird *(Mimus polyglottos),* horned lark *(Eremophila alpestris),* killdeer *(Charadrius vociferus),* loggerhead shrike *(Lanius ludovicianus),* and vesper sparrow *(Pooecetes gramineus).*

This warm prairie environment supports a large number of reptile species. More common reptiles include short-horned lizard *(Phrynosoma douglasii),* lesser earless lizard *(Holbrookia maculata),* eastern fence lizard *(Sceloporus undulatus),* coachwhip *(Masticophis flagellum),* bullsnake *(Pituophis melanoleucus sayi),* prairie rattlesnake *(Crotalus v. viridis),* and western rattlesnake *(Crotalus viridis).*

4. **Threatened and Endangered Species:** There are no known resident populations of threatened or endangered species on this allotment. A list of federal threatened, endangered, and candidate species reviewed for this EA can be found in Appendix 11 of the Roswell RMP (AP11-2). Of the listed species, avian species such as the bald eagle *(Haliaeetus leucocephalus)* and peregrine falcon *(Falco peregrinus)* may be observed in the general geographic area during migration or the winter months. There are no known records of these species having occurred on the allotment, and no designated critical habitat areas are within the allotment.

5. **Livestock Management:** This allotment is a "M" (Maintain) category due to amounts of public land present and potential for resource improvement.. This allotment consists of seven pastures for cattle. Livestock waters are located on private, state and public land.

6. **Visual Resources**: This allotment is located within a Class IV Visual Resource Management area. This means that contrasts may attract attention and be a dominant feature in the landscape in terms of scale. However, these changes should repeat the basic elements of landscape.

7. **Water Quality Drinking/Ground:** No perennial surface water is found on public land on this allotment. Fresh water sources are in Quaternary Alluvium and San Andres Formation. Depth to fresh water has been found at approximately 180 feet in Quaternary Alluvium. Depth to fresh water has been found from approximately 250 feet to 500 feet in San Andres Formation (New Mexico State Engineer Office data).

8. **Air Quality:** Air quality in the region is generally good. This allotment is in a Class II area for the Prevention of Significant Deterioration of air quality as defined in the public Clean Air Act. Class II areas allow a moderate amount of air quality degradation.

9. **Recreation:** Since this allotment has no facility-based recreational activities, only dispersed recreational opportunities occur on this land. Recreational activities that may occur include hunting, caving, sightseeing, off highway vehicle use, primitive camping, horseback riding and hiking.

Off Highway Vehicle designation for public land within this allotment is classified as "Limited" to existing roads and trails.

10. **Cave/Karst:** This allotment is not located within a designated area of low karst and cave potential. A complete significant cave or karst inventory has not been completed for public land located in this grazing allotment. No significant caves or karst features are known to exist within this allotment.

11. **Noxious Weeds** - Noxious and Invasive species: A noxious weed is defined as a plant that causes disease or has other adverse effects on human environment and is, therefore, detrimental to public health and to agriculture and commerce of the United States. Generally, noxious weeds are aggressive, difficult to manage, parasitic, are carriers or hosts of harmful insects or disease, and are either native, new to, or not common in the United States. In most cases, however, noxious weeds are non-native species.

The list currently includes the following weeds: 1) African rue *(Peganum harmala)*, 2) black henbane *(Hyoscyamus niger)*, 3) bull thistle *(Cirsium vulgare)*, 4) camelthorn *(Alhagi pseudalhagi)*, 5) Canada thistle *(Cirsium arvense)*, 6) dalmatian toadflax *(Linaria genistifolia ssp. Dalmatica)*, 7) goldenrod, *(Solidago Canadensis)* 8) leafy spurge *(Euphorbia esula)*, 9) Malta starthistle *(Centaurea melitensis)*, 10) musk thistle *(Carduus nutans)*, 11) poison hemlock *(Conium maculatum)*, 12) purple starthistle *(Centaurea calcitrapa)*, 13) Russian knapweed *(Centaurea repens)*, 14) Scotch thistle *(Onopordum acanthium)*, 15) spotted knapweed *(Centaurea maculosa)*, 16) teasel *(Dipsacus fullonum)*, 17) yellow starthistle *(Centaurea solstitialis)*, 18) yellow toadflax *(Linaria vulgaris)*, 19) Russian olive *(Elaeagnus angustifolia)*, 20) Saltcedar *(Tamarix chinensis)*, 21) Siberian elm *(Ulmus pumila).*

Of the noxious weeds listed, the ones with known populations in the Roswell District are African rue, non-native thistles *(Cirsium* spp.) such as bull thistle and Canada thistle, leafy spurge, goldenrod, Malta starthistle, Russian knapweed, Russian olive, Siberian el, poison hemlock, teasel, musk thistle and Scotch thistle. Also "problem weeds" of local concern are cocklebur *(Xanthium* spp.*)*, buffalobur *(Curcurbita foetidissima)* and spiny cocklebur *(Xanthium spinosum)*. "Problem weeds" are those weeds which may be native to the area but whose populations are out of balance with other local flora.

Infestations of noxious weeds can have a disastrous impact on biodiversity and natural ecosystems. Noxious weeds affect native plant species by out-competing native vegetation for light, water and soil nutrients. Noxious weeds cause estimated losses to producers $2 to $3 billion annually. These losses are attributed to: (1) Decreased quality of agricultural products due to high levels of competition from noxious weeds; (2) decreased quantity of agricultural products due to noxious weed infestations; and (3) costs to control and/or prevent the noxious weeds.

Further, noxious weeds can negatively affect livestock and dairy producers by making forage either unpalatable or toxic to livestock, thus decreasing livestock productivity and potentially increasing producers' feed and animal health care costs. Increased costs to operators are eventually borne by consumers.

Noxious weeds also affect recreational uses, and reduce realty values of both directly influenced and adjacent properties.

Recent federal legislation has been enacted requiring state and county agencies to implement noxious weed control programs. Monies would be made available for these activities from the federal government, generated from the federal tax base. Therefore, all citizens and taxpayers of the United States are directly affected when noxious weed control prevention is not exercised.

12. Floodplains: No impacts to the floodplains are known. By keeping structures out of floodplains, impacts should not occur.

IV. Environmental Impacts

A. Impacts of the Proposed Action

1. **Soil:** Grazing activities will continue to have some impact to soil. These impacts may include: removal of standing vegetation and litter; soil compaction along livestock trails or soil compaction may occur if livestock are concentrated during prolonged periods when soil is wet. These effects can lead to reduced infiltration rates and increased runoff. Reduced vegetative cover and increased runoff can result in higher

erosion rates and soil losses, making it more difficult to produce forage and to protect soil from further erosion. These adverse effects can be greatly reduced by maintaining adequate vegetative cover on the soil.

Proper utilization levels and grazing distribution patterns are expected to retain sufficient vegetative cover on this allotment as a whole and this would maintain the soil stability. Soil compaction and excessive vegetative use would occur at small, localized areas such as drinking locations, along trails and at bedding areas. Positive affects from this proposed action include speeding up of nutrient cycling process and chipping of soil crust by hoof action may stimulate seedling growth and water infiltration.

2. **Vegetation:** Vegetation would continue to be grazed and trampled by domestic livestock as well as other herbivores. Ecological condition and trend is expected to remain stable and/or improve over long-term with proposed authorized number of livestock and existing pasture management. Rangeland monitoring data indicates that there is an adequate amount of forage for multiple resource use objectives.

3. **Wildlife:** Domestic livestock would continue to utilize vegetative resources needed by a variety of wildlife species for life history functions within this allotment. Magnitude of livestock grazing impacts on wildlife is minimal in this area. Numerous residential developments and private land uses have impacted habitat over the years of development in this area. Cover habitat for wildlife would remain same as existing situation. Maintenance and operation of existing base water would continue to provide dependable water sources for wildlife, as well as livestock.

4. **T&E species**: Livestock grazing resulting from issuing a grazing lease, may affect, but not likely to adversely affect bald eagles. It is expected that habitat and range condition would be maintained or improved by authorizing grazing conducive with multiple resource vegetative production goals. Habitat for wintering bald eagles would not be negatively impacted by livestock grazing. There would be no impact to peregrine falcons since important riparian nesting sites are not found on this allotment.

5 **Livestock Management:** No adverse impacts are anticipated under this proposed action. If future monitoring indicates a need for an adjustment in livestock numbers, this determination will be made in accordance with established protocols.

6. **Visual Resources**: Continued grazing of livestock would not affect lanscape form or color. Primary appearance of the vegetation within this allotment would remain.

7. **Water Quality Drinking/Ground:** Direct impacts to surface water quality would be minor, short-term impacts during stormflow. Indirect impacts to water-quality related resources, such as fisheries, would not occur. This proposed action would not have a significant effect on ground water. Livestock would be dispersed over this allotment, and soil would filter potential contaminants.

8. **Air Quality:** Dust levels under this proposed action would be slightly higher than under the no grazing alternative due to allotment management activities. Levels would be within limits allowed in a Class II area for Prevention of Significant Deterioration of air quality.

9. **Recreation:** Grazing should have little or no impact on dispersed recreational opportunities within this allotment. Evidence or presence of livestock can negatively affect visitors who desire solitude, unspoiled landscape views, or to hike without seeing signs of livestock. However, grazing can benefit some forms or recreation, such as hunting, by creating new water sources for game animals.

10. **Caves/Karst**: No known significant cave or karst features are known to exist on this allotment. There is a low potential that caves do exist in this area.

11. **Non-native and Invasive species**: Currently, there are no known populations of noxious or

invasive species found within boundaries of Allotment #64068. Noxious and invasive species will take advantage of areas opened up by disturbance. This has generally been found where other native populations have been removed by some kind of soil surface disturbance, then followed by drought. Re-establishment of good vegetative cover provides competition for noxious species, reducing their success. Livestock will avoid grazing these plants as they may develop spines off of bracts below flowesr, or are toxic, or have low palatability, making these plants very unattractive. Careful grazing management will reduce areas open to invasion. Grazing management will also provide early detection of new populations which may occur.

12. **Floodplains:** No impacts to floodplains are known. By keeping structures out of floodplains, impacts should not occur.

B. Impacts of the No Livestock Grazing Alternative.

1. **Soil:** Soil compaction would be reduced on this allotment around old trails and bedding grounds. There would be a small reduction in soil loss on this allotment.

2. **Vegetation:** It is expected that the number of plant species found within this allotment will remain same, however, there would be small changes in relative percentages of these species. Vegetation will continue to be utilized by wildlife. There would be an increase in amounts of standing vegetation.

3. **Wildlife:** Conflicts between wildlife and livestock for habitat and dietary needs would not exist under this alternative.

4. **T&E Species**: There would be no impacts to threatened or endangered species or habitat.

5. **Livestock Management:** Forage from public land would be unavailable for use by permittee. This would have a significant adverse economic impact to the livestock operation. If the No Grazing alternative is selected, owner of the livestock would be responsible for ensuring that livestock do not enter Public Land [43 CFR 4140.1(b)(1)]. Intermingled land status on this allotment makes it economically unfeasible to fence out public land and use only private land. Remaining private land could not support numbers of livestock currently authorized and lower number of livestock would not provide level of potential income operator is accustomed to.

6. **Visual Resources**: There would be no change in visual resources.

7. **Water Quality:** There could be a slight improvement in water quality due to minor reductions in sediment loading during stormflow.

8. **Air Quality:** There would be a slightly less dust under this under this alternative versus proposed alternative, but this would be negligible when considering all sources of dust.

9. **Recreation:** Impacts would be very minor under this alternative. No positive impacts from livestock watering locations would occur.

10. **Caves/Karst:** Impacts would be the same as proposed action if no significant caves are found.

11. **Non-native and Invasive Species**: There would be no change in existing non-native/invasive species populations. However, if native grasses and vegetation are removed by an unforeseen soil disturbance, new infestations may occur.

12. **Floodplains:** Impacts would be the same as proposed action.

V. Public Land Health

Public Land (Rangeland) Health assessments were completed on this allotment during 2004. Based on these assessments and monitoring data a Determination was made that public land within this livestock grazing allotment is in conformance with New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management. A copy of this assessment can be accessed at www.nm.blm.gov/rfo/index.htm.

VI. Cumulative Impacts

All of allotments that have permits/leases with the BLM will undergo scoping and analysis in conformance with NEPA. Allotment #64068 is surrounded by others that will undergo this process. If the proposed action is selected, there would be no change in cumulative impacts since it does not vary from current situation.

If the no livestock grazing alternative is selected, there would be little change in cumulative impact as long as surrounding allotments continue to be stocked at their current level. If permitted numbers are reduced on surrounding ranches as well, economics of surrounding communities and/or minority/low income populations would be negatively impacted.

The No Grazing alternative was considered, but not chosen in the Rangeland Reform Environmental Impact Statement (EIS) Record of Decision (ROD) (p. 28). Elimination of grazing in the Roswell Field Office Area was also considered but eliminated by the Roswell RMP/ROD (pp. ROD-2).

VII. Residual Impacts

Vegetative monitoring studies have shown that grazing, at current permitted numbers of animals, is sustainable. If mitigation measures are enacted, then there would be no residual impacts to the proposed action.

VIII. Socio-Economic Impacts

A description of economic, social and cultural conditions by geographic region within New Mexico can be found in 2000 New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management Final EIS. Impacts of authorizing grazing for this allotment under this Proposed Alternative on economic, social and cultural conditions of southeast New Mexico would be positive. On a smaller scale, impacts of authorizing grazing for this allotment under the Proposed Action on economic, social and cultural conditions of Chaves County would also be positive.

IX. Mitigating Measures

Vegetation monitoring studies will continue to be conducted and permitted numbers of livestock will be adjusted if necessary. If new information surfaces that livestock grazing is negatively impacting other resources, action will be taken at that time to mitigate those impacts.

IX. BLM Team Members

Joseph Navarro, John Spain, Helen Miller, Tim Kreager, Irene Gonzales-Salas, Jerry Dutchover, Pat Flanary, Michael McGee, Paul Happel, Bill Murry, Howard Parman, and Dan Baggao.

Production (lbs/ac) Data

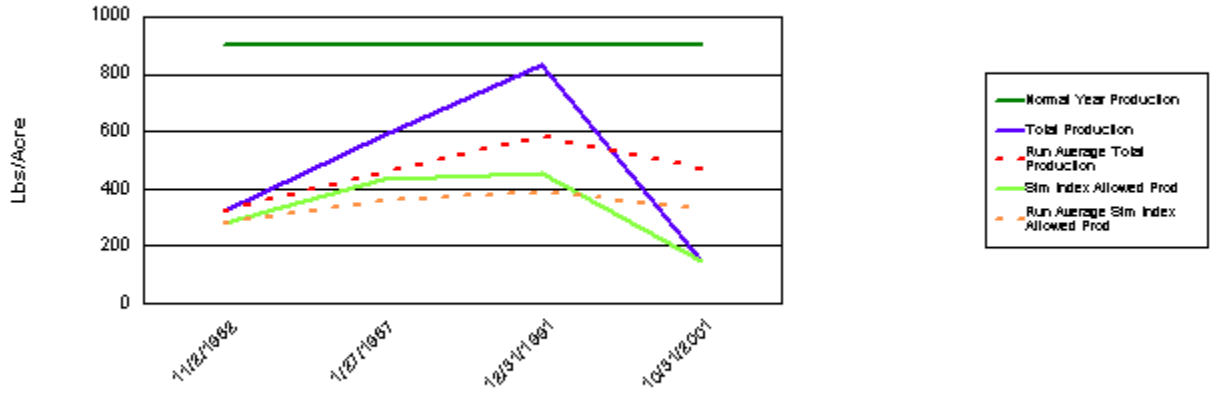
VEGID: 797

64068 ZUBI DRAW 64068-ROCK TANK-F054

LOAMY SD-3 042CY007NM

Date	Range Cond.	Similarity Index	Normal Year Production	Total Production	Running Average Production	Sim Index Allowed Production	Running Average Sim Index Allowed Production
11/02/1982	62.57	30.89	900	319.00	319.00	278.00	278.00
01/27/1987	61.03	47.89	900	589.00	454.00	431.00	354.50
12/31/1991	50.00	50.56	900	834.00	580.67	455.00	388.00
10/31/2001	47.83	16.11	900	145.00	471.75	145.00	327.25

Production Data For Study Site



Production (lbs/ac) Data

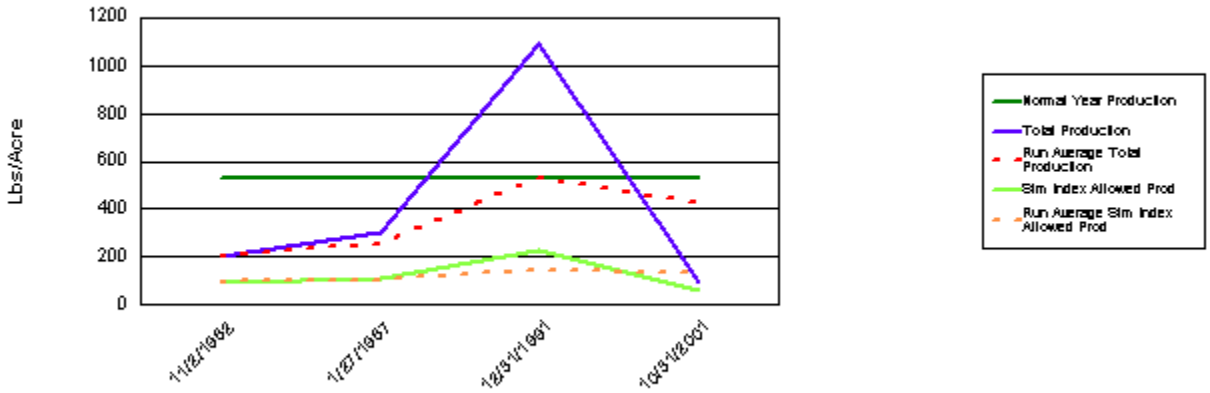
VEGID: 798

64068 ZUBI DRAW 64068-MEXICAN-F055

SHALLOW SD-3 042CY025NM

Date	Range Cond.	Similarity Index	Normal Year Production	Total Production	Running Average Production	Sim Index Allowed Production	Running Average Sim Index Allowed Production
11/02/1982	26.90	18.48	525	202.00	202.00	97.00	97.00
01/27/1987	25.21	20.19	525	306.00	254.00	106.00	101.50
12/31/1991	30.00	43.62	525	1,088.00	532.00	229.00	144.00
10/31/2001	19.24	11.43	525	93.00	422.25	60.00	123.00

Production Data For Study Site



Production (lbs/ac) Data

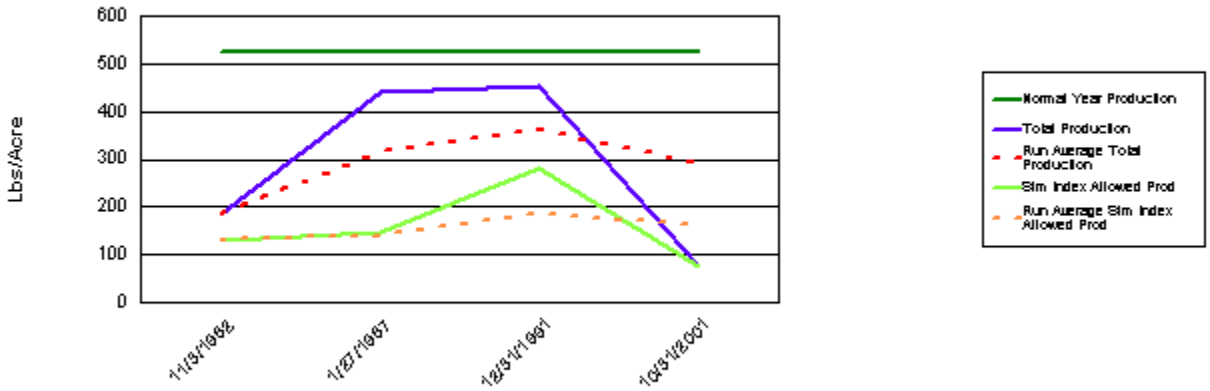
VEGID: 799

64068 ZUBI DRAW 64068-MADE TANK-F056

SHALLOW SD-3 042CY025NM

Date	Range Cond.	Similarity Index	Normal Year Production	Total Production	Running Average Production	Sim Index Allowed Production	Running Average Sim Index Allowed Production
11/03/1982	40.52	24.76	525	186.00	186.00	130.00	130.00
01/27/1987	31.48	28.00	525	442.00	314.00	147.00	138.50
12/31/1991	59.00	53.52	525	451.00	359.67	281.00	186.00
10/31/2001	44.77	14.48	525	78.00	289.25	76.00	158.50

Production Data For Study Site



Production (lbs/ac) Data

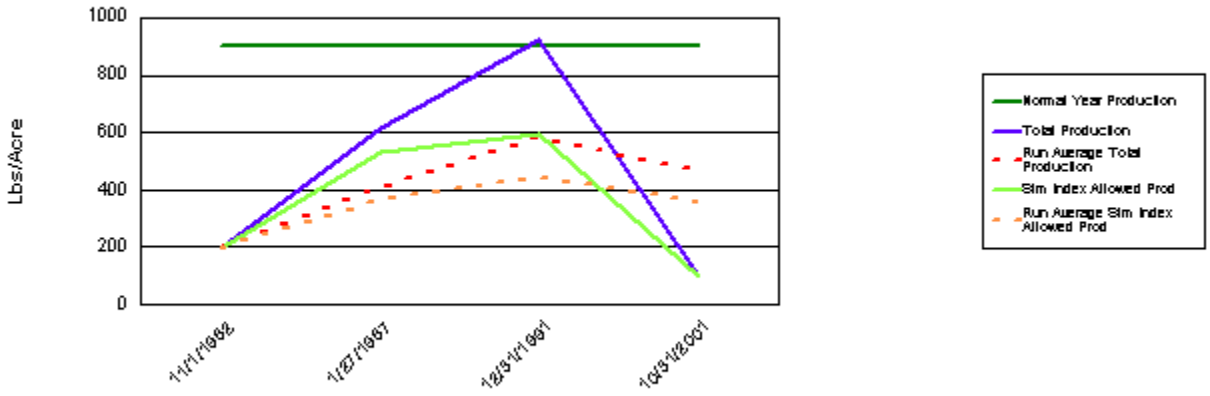
VEGID: 800

64068 ZUBI DRAW 64068-SOUTH TRAP-F057

LOAMY SD-3 042CY007NM

Date	Range Cond.	Similarity Index	Normal Year Production	Total Production	Running Average Production	Sim Index Allowed Production	Running Average Sim Index Allowed Production
11/01/1982	60.85	21.56	900	194.00	194.00	194.00	194.00
01/27/1987	65.05	59.00	900	617.00	405.50	531.00	362.50
12/31/1991	65.00	66.33	900	925.00	578.67	597.00	440.67
10/31/2001	49.12	10.89	900	98.00	458.50	98.00	355.00

Production Data For Study Site



Production (lbs/ac) Data

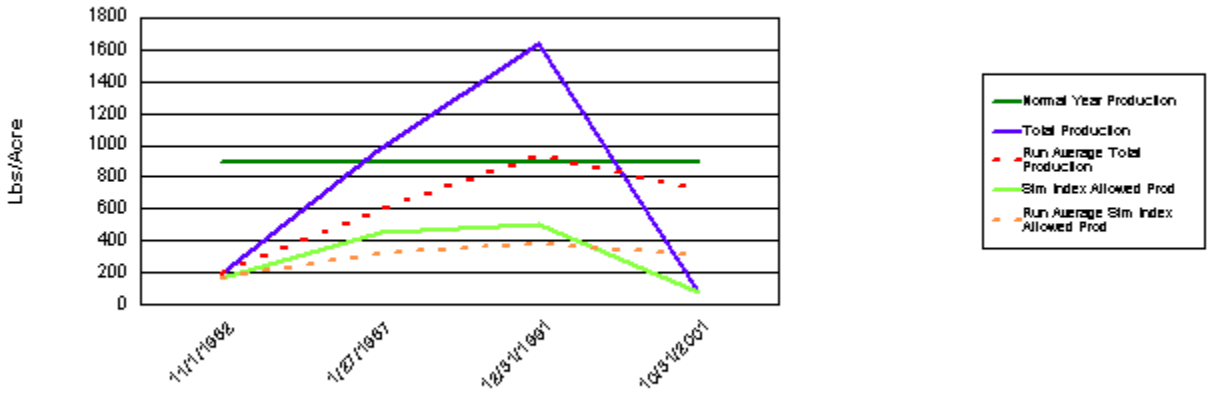
VEGID: 801

64068 ZUBI DRAW 64068-SULFUR-F058

LOAMY SD-3 042CY007NM

Date	Range Cond.	Similarity Index	Normal Year Production	Total Production	Running Average Production	Sim Index Allowed Production	Running Average Sim Index Allowed Production
11/01/1982	47.70	18.33	900	191.00	191.00	165.00	165.00
01/27/1987	50.93	51.11	900	984.00	587.50	460.00	312.50
12/31/1991	50.00	56.44	900	1,635.00	936.67	508.00	377.67
10/31/2001	44.23	7.89	900	71.00	720.25	71.00	301.00

Production Data For Study Site



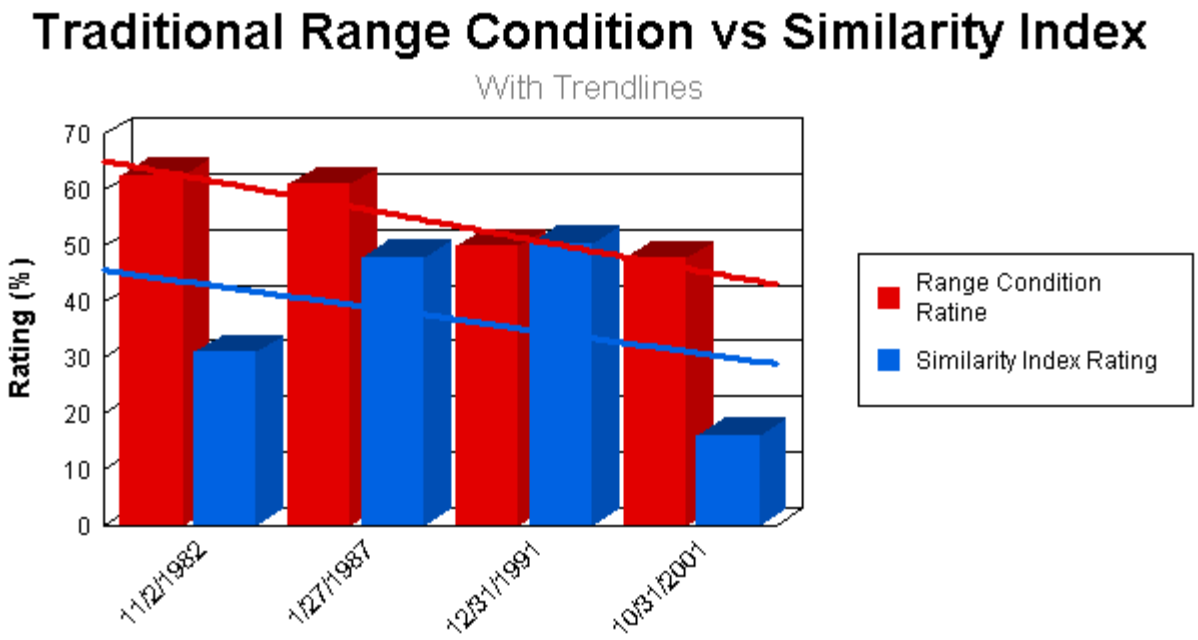
Traditional Range Condition and Similarity Index Data

VEGID: 797

64068 ZUBI DRAW 64068-ROCK TANK-F054

LOAMY SD-3 042CY007NM

Date	Range Cond.	Similarity Index	Total Production	Normal Year Production
11/02/1982	62.57	30.89	319.00	900
01/27/1987	61.03	47.89	589.00	900
12/31/1991	50.00	50.56	834.00	900
10/31/2001	47.83	16.11	145.00	900



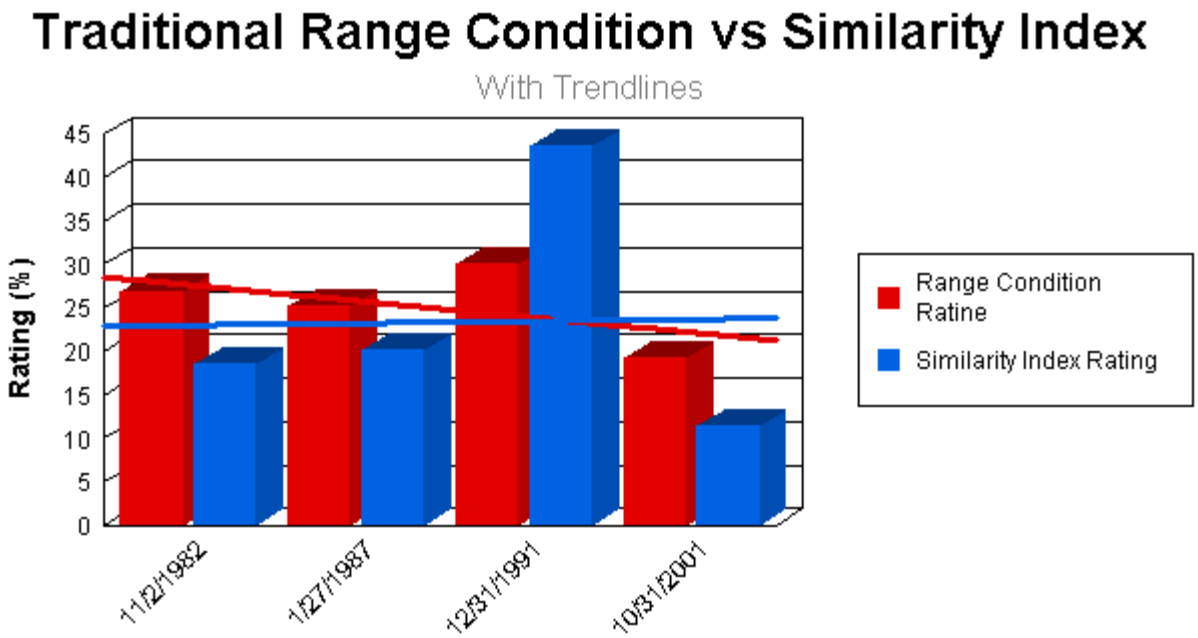
Traditional Range Condition and Similarity Index Data

VEGID: 798

64068 ZUBI DRAW 64068-MEXICAN-F055

SHALLOW SD-3 042CY025NM

Date	Range Cond.	Similarity Index	Total Production	Normal Year Production
11/02/1982	26.90	18.48	202.00	525
01/27/1987	25.21	20.19	306.00	525
12/31/1991	30.00	43.62	1,088.00	525
10/31/2001	19.24	11.43	93.00	525



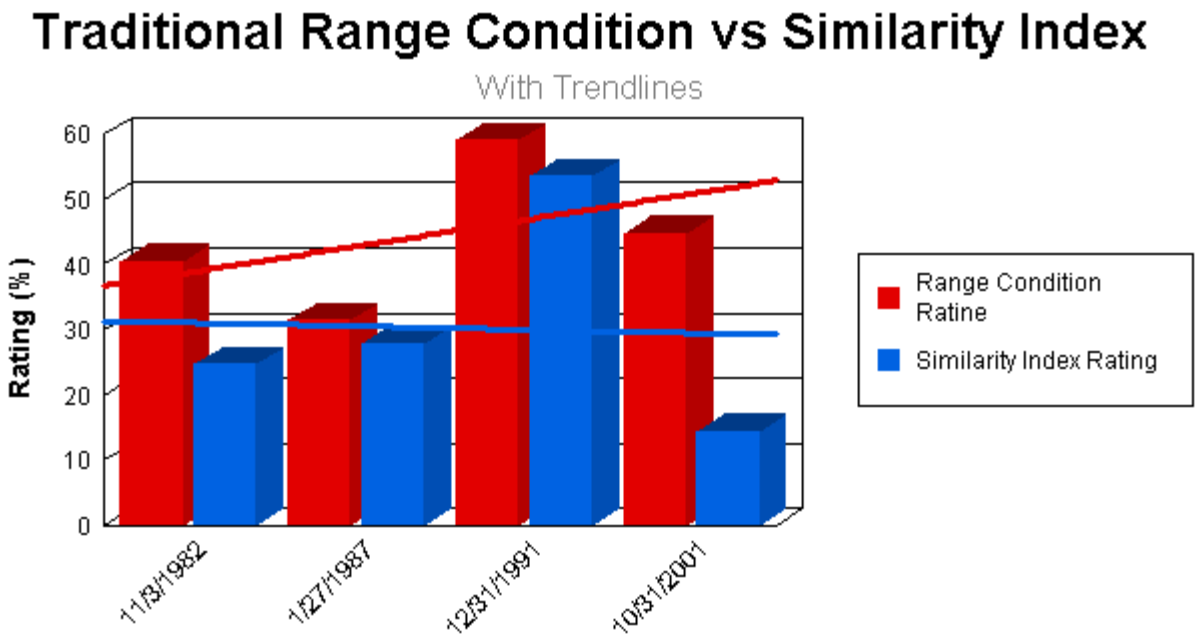
Traditional Range Condition and Similarity Index Data

VEGID: 799

64068 ZUBI DRAW 64068-MADE TANK-F056

SHALLOW SD-3 042CY025NM

Date	Range Cond.	Similarity Index	Total Production	Normal Year Production
11/03/1982	40.52	24.76	186.00	525
01/27/1987	31.48	28.00	442.00	525
12/31/1991	59.00	53.52	451.00	525
10/31/2001	44.77	14.48	78.00	525



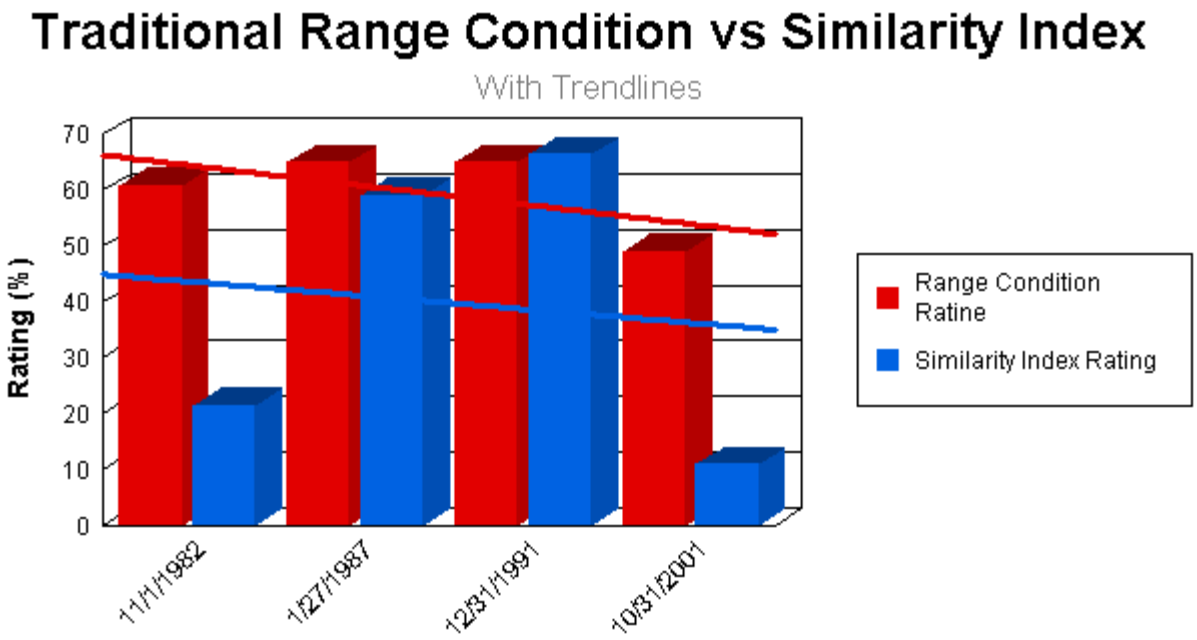
Traditional Range Condition and Similarity Index Data

VEGID: 800

64068 ZUBI DRAW 64068-SOUTH TRAP-F057

LOAMY SD-3 042CY007NM

Date	Range Cond.	Similarity Index	Total Production	Normal Year Production
11/01/1982	60.85	21.56	194.00	900
01/27/1987	65.05	59.00	617.00	900
12/31/1991	65.00	66.33	925.00	900
10/31/2001	49.12	10.89	98.00	900



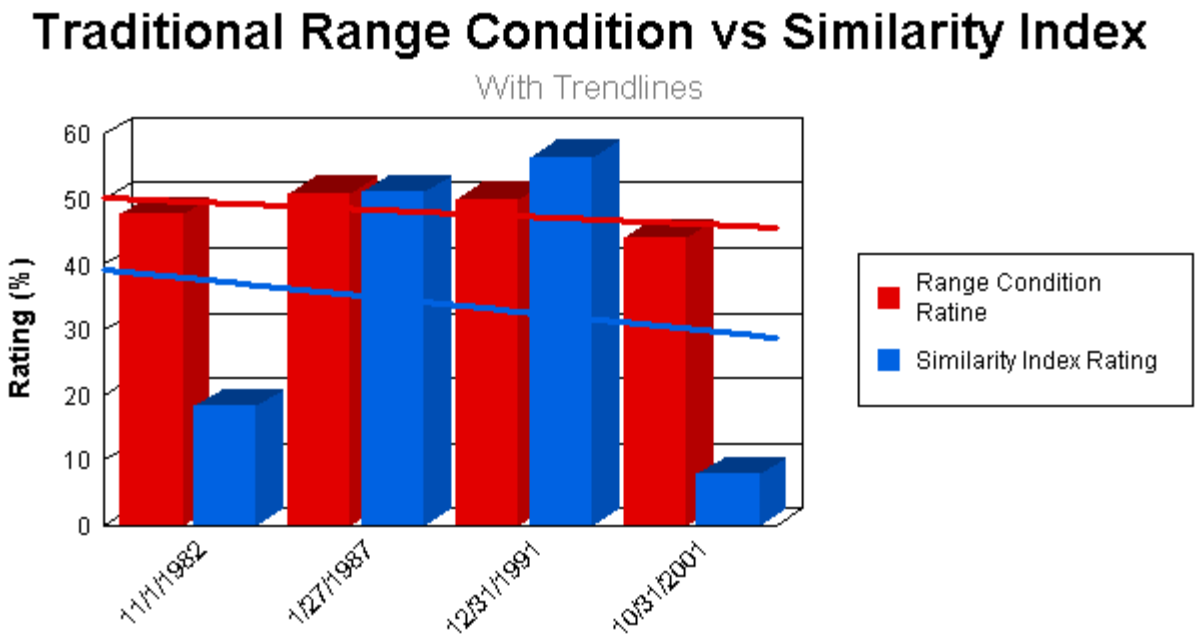
Traditional Range Condition and Similarity Index Data

VEGID: 801

64068 ZUBI DRAW 64068-SULFUR-F058

LOAMY SD-3 042CY007NM

Date	Range Cond.	Similarity Index	Total Production	Normal Year Production
11/01/1982	47.70	18.33	191.00	900
01/27/1987	50.93	51.11	984.00	900
12/31/1991	50.00	56.44	1,635.00	900
10/31/2001	44.23	7.89	71.00	900



Allotment Weighted Average Range Condition and Similarity Index

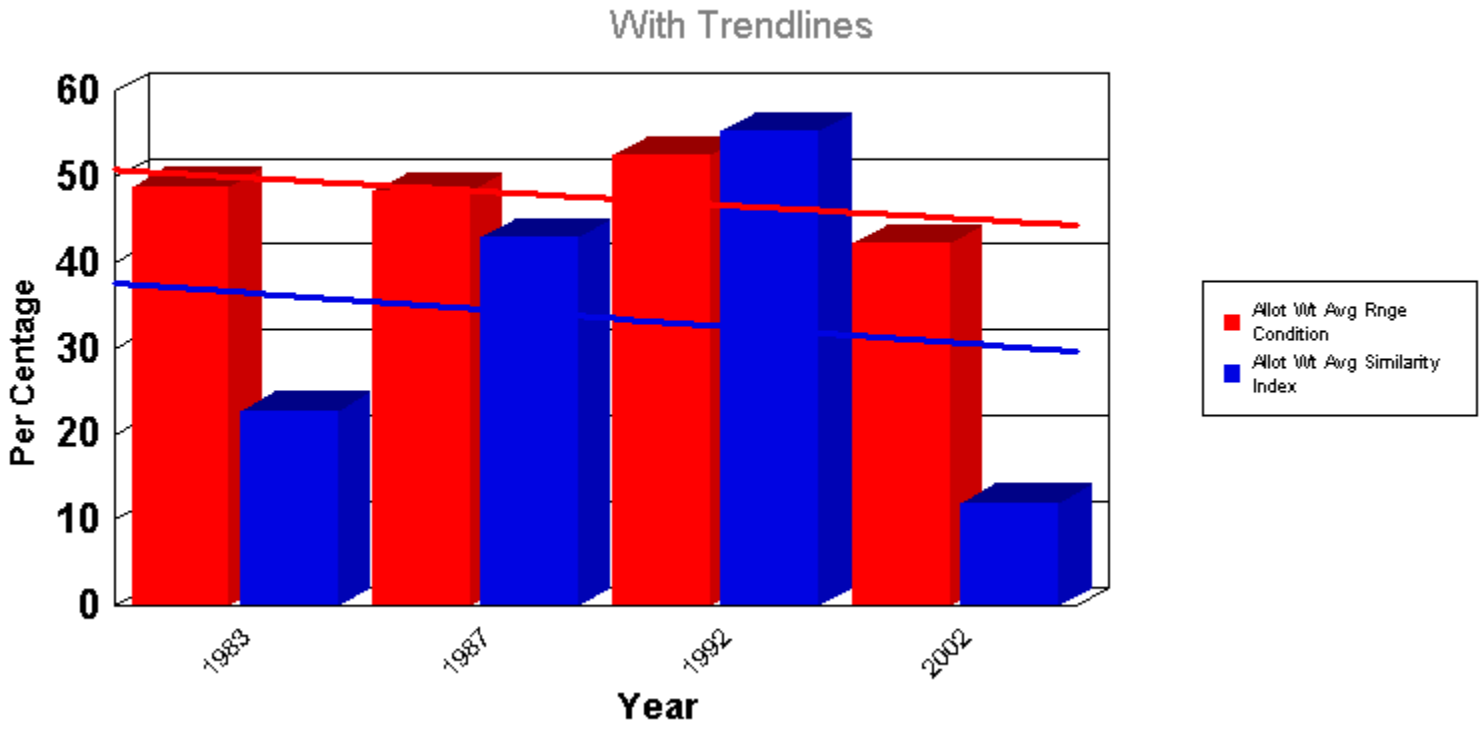
NM060 Date Printed: 4/20/200

64068 ZUBI DRAW

Data Information presented below is based on the allotment weighted average of range condition and similarity index ratings for the years included in the allotment monitoring evaluations. The trendline is based on linear regression for each data set.

Year	Range Condition	Similarity Index
1983	49.00	22.72
1987	48.35	42.99
1992	52.51	55.31
2002	42.27	12.02

Weighted Average Range Condition vs Similarity Index



NM060

Date Printed: 4/20/200

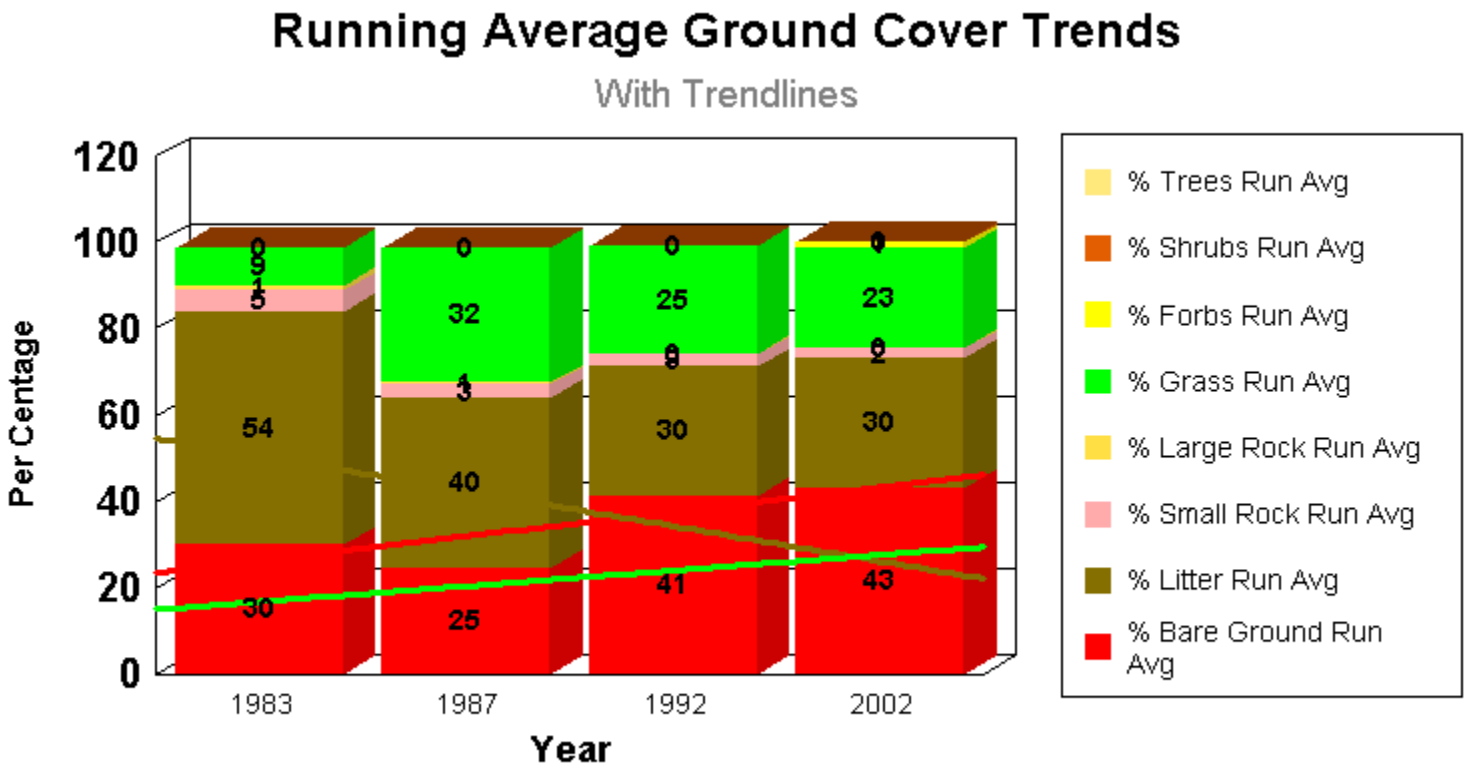
Vegid#: 797

64068 ZUBI DRAW ROCK TANK

64068-ROCK TANK-F054 Ecological Site No.: 042CY007NM

Location: Township: 0130S Range 0230E Section 34 QtrQtr: SENE

Year	Bare Ground	Litter	Small Rock	Large Rock	Forbs	Grass	Shrubs	Trees	Running Average Bground	Running Average Litter	Running Average Srock	Running Average Lrock	Running Average Forb	Running Average Grass	Running Average Shrubs	Running Average Trees
1983	30.00	54.00	5.00	1.00		9.00	0.00		30.00	54.00	5.00	1.00		9.00	0.00	
1987	19.00	25.00	1.00	0.00		54.00	0.00		24.50	39.50	3.00	0.50		31.50	0.00	
1992	75.00	11.00	2.00	0.00		12.00	0.00		41.33	30.00	2.67	0.33		25.00	0.00	
2002	49.00	30.00	1.00	0.00	1.00	18.00	1.00		43.25	30.00	2.25	0.25	1.00	23.25	0.25	



NM060

Date Printed: 4/20/200

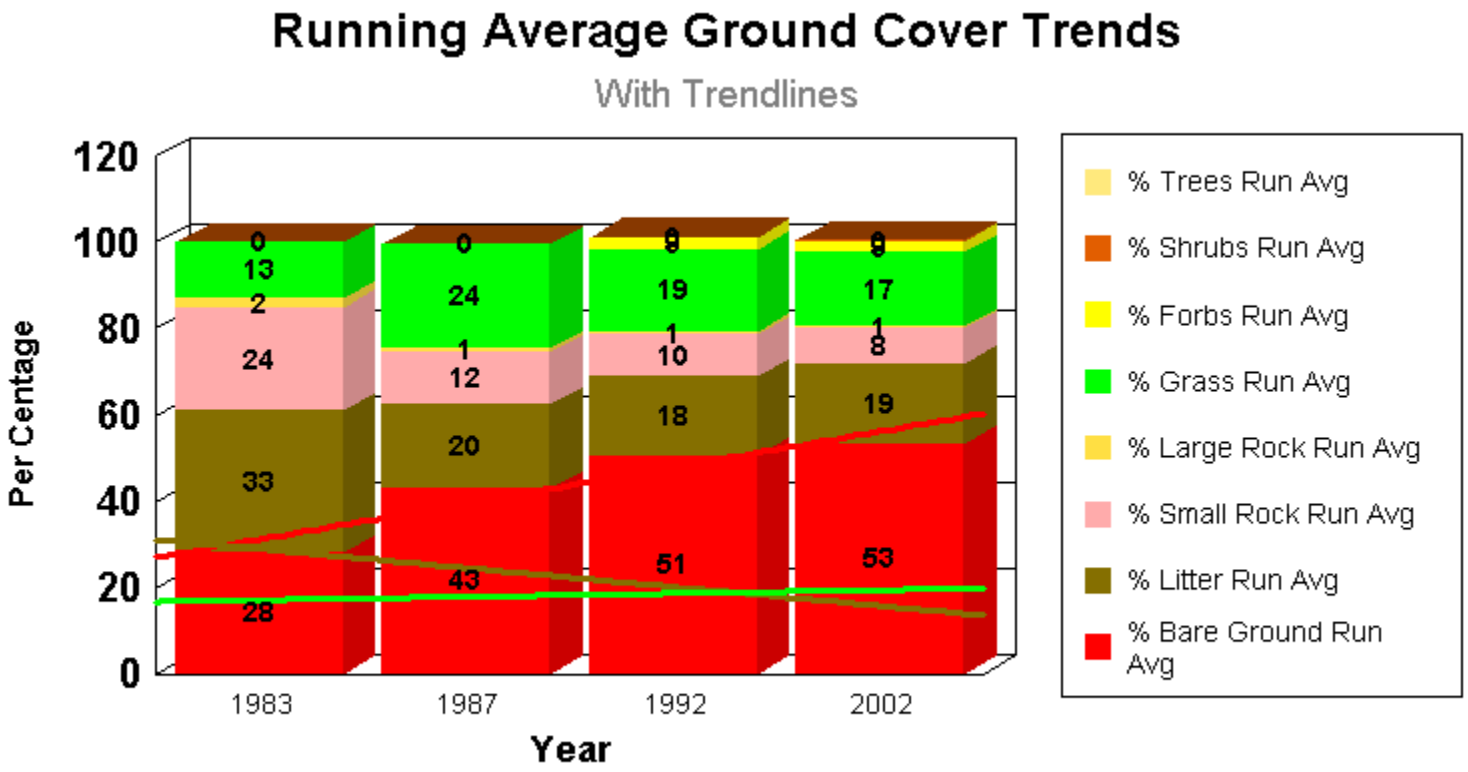
64068 ZUBI DRAW MEXICAN

Vegid#: 798

64068-MEXICAN-F055 Ecological Site No.: 042CY025NM

Location: Township: 0140S Range 0230E Section 03 QtrQtr: SESE

Year	Bare Ground	Litter	Small Rock	Large Rock	Forbs	Grass	Shrubs	Trees	Running Average Bground	Running Average Litter	Running Average Srock	Running Average Lrock	Running Average Forb	Running Average Grass	Running Average Shrubs	Running Average Trees
1983	28.00	33.00	24.00	2.00		13.00	0.00		28.00	33.00	24.00	2.00		13.00	0.00	
1987	58.00	6.00	0.00	0.00		35.00	0.00		43.00	19.50	12.00	1.00		24.00	0.00	
1992	66.00	16.00	5.00	0.00	3.00	9.00	0.00		50.67	18.33	9.67	0.67	3.00	19.00	0.00	
2002	61.00	20.00	3.00	0.00	2.00	12.00	1.00		53.25	18.75	8.00	0.50	2.50	17.25	0.25	



NM060

Date Printed: 4/20/200

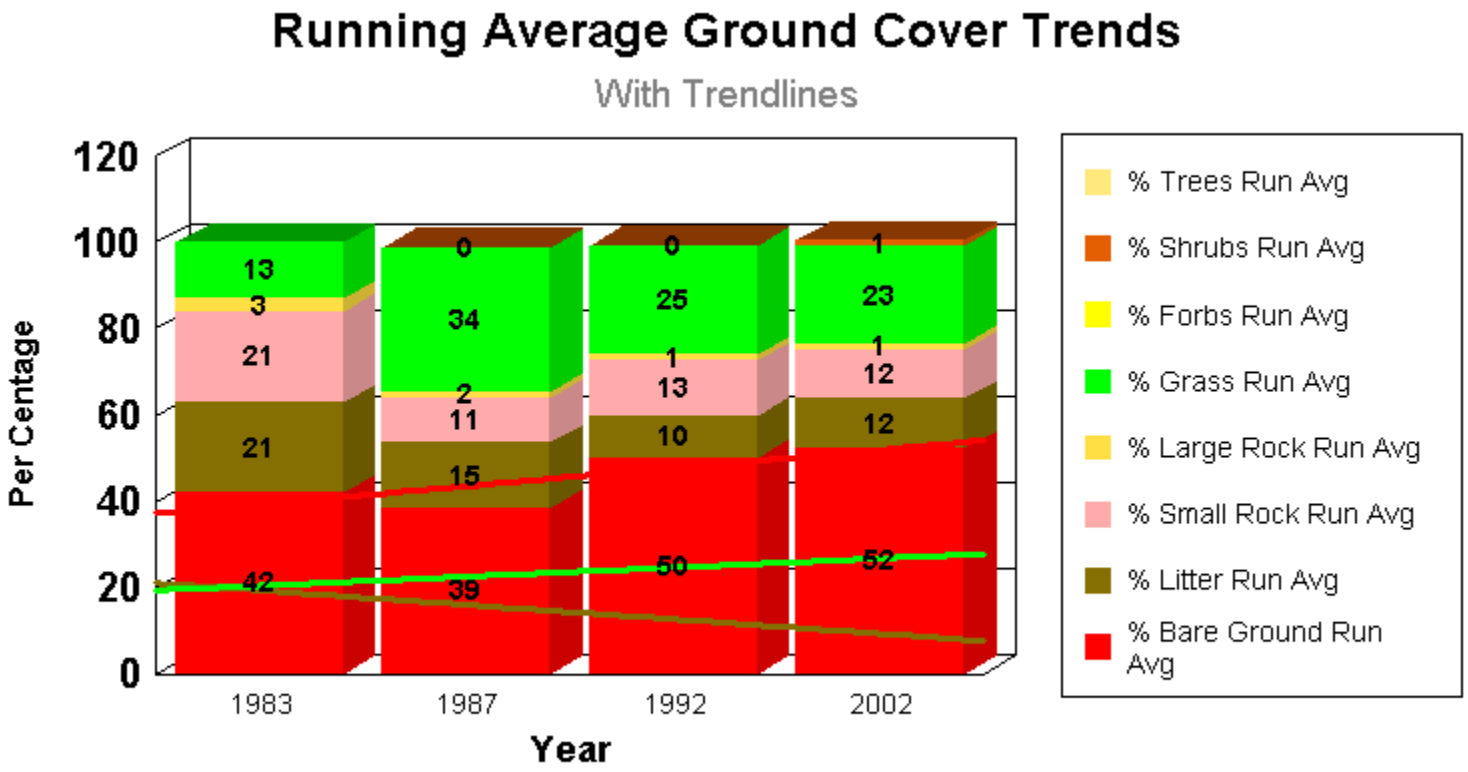
64068 ZUBI DRAW MADE TANK

Vegid#: 799

64068-MADE TANK-F056 Ecological Site No.: 042CY025NM

Location: Township: 0140S Range 0230E Section 05 QtrQtr: NESW

Year	Bare Ground	Litter	Small Rock	Large Rock	Forbs	Grass	Shrubs	Trees	Running Average Bground	Running Average Litter	Running Average Srock	Running Average Lrock	Running Average Forb	Running Average Grass	Running Average Shrubs	Running Average Trees
1983	42.00	21.00	21.00	3.00		13.00			42.00	21.00	21.00	3.00		13.00		
1987	35.00	9.00	0.00	0.00		54.00	0.00		38.50	15.00	10.50	1.50		33.50	0.00	
1992	73.00	0.00	17.00	1.00		9.00	0.00		50.00	10.00	12.67	1.33		25.33	0.00	
2002	59.00	16.00	8.00	1.00		15.00	4.00		52.25	11.50	11.50	1.25		22.75	1.33	



NM060

Date Printed: 4/20/200

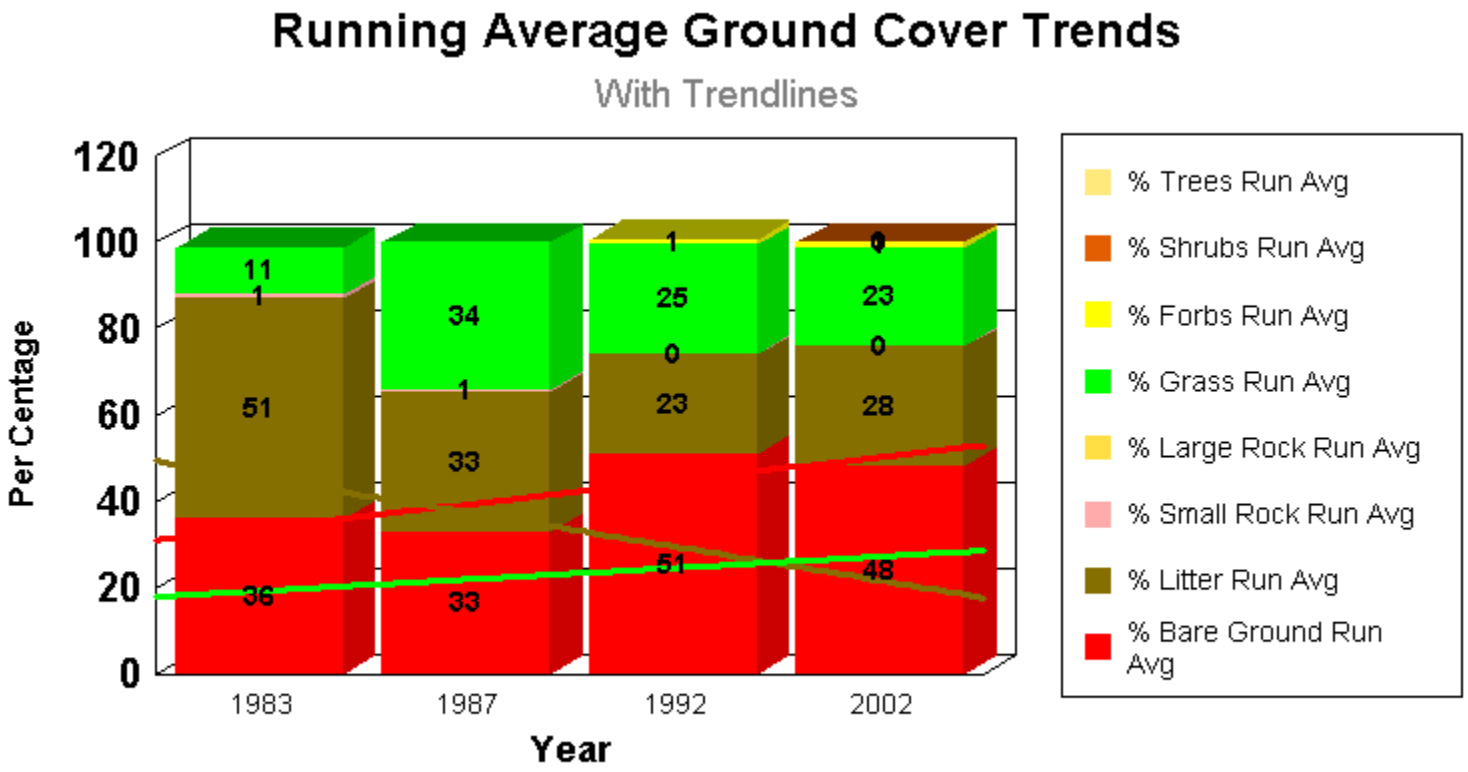
64068 ZUBI DRAW SOUTH TRAP

Vegid#: 800

64068-SOUTH TRAP-F057 Ecological Site No.: 042CY007NM

Location: Township: 0130S Range 0230E Section 21 QtrQtr: NWSE

Year	Bare Ground	Litter	Small Rock	Large Rock	Forbs	Grass	Shrubs	Trees	Running Average Bground	Running Average Litter	Running Average Srock	Running Average Lrock	Running Average Forb	Running Average Grass	Running Average Shrubs	Running Average Trees
1983	36.00	51.00	1.00			11.00			36.00	51.00	1.00			11.00		
1987	30.00	14.00	0.00			57.00			33.00	32.50	0.50			34.00		
1992	87.00	4.00	0.00		1.00	8.00			51.00	23.00	0.33		1.00	25.33		
2002	40.00	42.00	0.00		1.00	15.00	0.00		48.25	27.75	0.25		1.00	22.75	0.00	



NM060

Date Printed: 4/20/200

64068 ZUBI DRAW SULFUR

Vegid#: 801

64068-SULFUR-F058 Ecological Site No.: 042CY007NM

Location: Township: 0130S Range 0230E Section 17 QtrQtr: NWSW

Year	Bare Ground	Litter	Small Rock	Large Rock	Forbs	Grass	Shrubs	Trees	Running Average Bground	Running Average Litter	Running Average Srock	Running Average Lrock	Running Average Forb	Running Average Grass	Running Average Shrubs	Running Average Trees
1983	43.00	39.00	0.00			16.00	1.00		43.00	39.00	0.00			16.00	1.00	
1987	20.00	9.00	0.00			70.00	0.00		31.50	24.00	0.00			43.00	0.50	
1992	65.00	21.00	0.00			14.00	0.00		42.67	23.00	0.00			33.33	0.33	
2002	38.00	34.00	0.00		3.00	24.00	1.00		41.50	25.75	0.00		3.00	31.00	0.50